

Consequently, these claims, as well as claims 14 and 15, claim 8, claims 12, 13, and 32, and claims 17 and 18, which depend respectively from claims 6, 7, 11, and 16, are properly examined with the other Invention I claims (claims 1, 2, and 30).


Moreover, Applicants have amended claim 4 of Invention II, directed to a sensing assembly, to include the commutator of claim 1 and a sensor. The Action has not and cannot demonstrate that Inventions I and II are patentably distinct because (1) the relationship between the sensing assembly (Invention II) and the commutator (Invention I) is that of a combination-subcombination and (2) the claims to the sensing assembly refer to the claims to the commutator, so that the Action is incapable of making the requisite showing of two-way distinctiveness pursuant to MPEP 806.05(c). Thus, Inventions I and II are properly maintained in the same application.

Moreover, examination of elected Invention I will necessarily require the same field of search necessary for examination of Invention III. The presence of both inventions in a single application therefore imposes no undue burden on the Examiner. More specifically, in order to properly search and examine new Invention I claim 36 (directed to a commutator), the Examiner must search in the commutator manufacturing art for commutators provided with a shell, a magnet, and a core molded in contact with the magnet, features recited in method claim 22 of Invention III. Similarly, in order to properly search and examine Invention I claim 11, the Examiner must search in the magnet art for magnets formed with a magnetic powder and a resin, a feature recited in method claim 24 of Invention III. Examination of Invention I claim 16 and Invention III claim 28, both directed to commutators having electrically-conductive material positioned within the commutator shell, would also require the same field of search. The

presence of the Invention III claims directed to a method of making a commutator, thus imposes no undue burden on examination, and restriction for examination purposes is improper. Because Applicants have shown that restriction of any of the inventions is improper, withdrawal of the requirement and examination of all of the claims on the merits is respectfully requested.

This Amendment and Response elects Invention I (claims 1, 2, 5-18, 31, 32, 35, and 36), amends claims 1, 4-18, 31, and 32 and add new claims 35 and 36. With this amendment, claims 1, 2, 4-22, 24, 25, 27, 28, and 30-36 are currently pending in the application. A check in the amount of \$36 is enclosed to cover these amendments and additions. No further fees are believed due; however, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account 11-0855.

Respectfully submitted,



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Marked-up copy of amended claims pursuant to 37 C.F.R. § 1.121(c)

1. (Twice Amended) A commutator [for a motor wherein the commutator comprises] comprising at least one magnet chemically-bonded to the commutator.
4. (Twice Amended) A sensing assembly comprising [a] the commutator of claim 1 [having:
 - a. a shell,
 - b. an insulating core positioned adjacent the shell,
 - c. at least one magnet positioned adjacent and chemically-bonded to the core;] and
 - [d.] a sensor.
5. (Amended) The [sensing assembly] commutator of claim [4] 35, wherein the shell comprises copper.
6. (Amended) The [sensing assembly] commutator of claim [4] 35, wherein the commutator is substantially cylindrical and has an outer cylindrical wall and a face.
7. (Amended) The [sensing assembly] commutator of claim [4] 35, wherein the shell is substantially cylindrical and has an inner surface.

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8. (Amended) The [sensing assembly] commutator of claim 7, wherein the shell comprises at least one anchor extending radially inwardly from the inner surface of the shell.
9. (Amended) The [sensing assembly] commutator of claim [4] 35, wherein the core comprises electrically-insulative material.
10. (Amended) The [sensing assembly] commutator of claim [4] 35, wherein the magnet comprises electrically non-conductive material.
11. (Amended) The [sensing assembly] commutator of claim [4] 35, wherein the magnet comprises a magnetic powder and a resin.
12. (Amended) The [sensing assembly] commutator of claim 11, wherein the magnetic powder comprises strontium ferrite.
13. (Amended) The [sensing assembly] commutator of claim 11, wherein the magnetic powder comprises barium ferrite.
14. (Amended) The [sensing assembly] commutator of claim 6, wherein the magnet is at least partially exposed on the face of commutator.

15. (Amended) The [sensing assembly] commutator of claim 6, wherein the magnet is at least partially exposed on the outer cylindrical wall of the commutator.
16. (Amended) The [sensing assembly] commutator of claim [4] 35, wherein the commutator further comprises an electrically-conductive material positioned partially within the shell, the electrically-conductive material having an inner face and an outer face adapted to contact an electrical brush in use.
17. (Amended) The [sensing assembly] commutator of claim 16, wherein the electrically-conductive material comprises a carboneous material.
18. (Amended) The [sensing assembly] commutator of claim 16, wherein the core comprises a material that chemically bonds with at least a portion of the inner face of the electrically-conductive material.
31. (Amended) The [sensing assembly] commutator of claim [4] 35, wherein the at least one magnet is a substantially continuous ring.
32. (Amended) The [sensing assembly] commutator of claim 11, wherein the resin comprises a thermo-set resin.
- 35. (New) The commutator of claim 1, further comprising:
- a. a shell;

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b. an insulating core positioned adjacent the shell; and

c. the at least one magnet positioned adjacent and chemically-bonded to the

core. --

-- 36. (New) The commutator of claim 35, wherein the core is molded in contact with

the at least one magnet. --